

WHAT IS CLAIMED IS:

1. A method of alleviating symptoms of a connective tissue disorder selected from the group consisting of Dupuytren's contracture, scleroderma, Peyronie's disease, and claudication due to peripheral arterial disease comprising administering to a subject in need thereof, streptolysin O in an amount effective to treat one or more symptoms of said connective tissue disorder.

2. The method of claim 1, wherein said connective tissue disorder is Dupuytren's contracture.

3. The method of claim 1, wherein said connective tissue disorder is scleroderma.

4. The method of claim 1, wherein said connective tissue disorder is Peyronie's disease.

5. The method of claim 1, wherein said connective tissue disorder is claudication due to peripheral arterial disease.

6. The method of claim 1, where said streptolysin O is administered by a mode selected from the group consisting of sublingual, bucal, oral drench, subcutaneous, intradermal, intravenous, intramuscular, intrathecal, inhalation, and topical.

7. The method of claim 6, wherein said streptolysin O is administered sublingually.

8. The method of claim 1, wherein said streptolysin O is administered at a dosage from about 0.0032 units to about 50 units.

9. The method of claim 1, wherein said streptolysin O is administered at a dosage from about 0.05 units to about 10 units.

10. The method of claim 1, wherein said streptolysin O is administered at a dosage from about 0.01 units to about 1.0 unit.

11. The method of alleviating symptoms of a connective tissue disorder in bovines which is mastitis comprising administering to a bovine in need thereof streptolysin O in an amount effective to treat one or more symptoms of said connective tissue disorder.

12. The method of claim 11, wherein said streptolysin O is administered by a mode selected from the group consisting of sublingual, bucal, oral drench, subcutaneous, intradermal, intravenous, intramuscular, intrathecal, inhalation, and topical.

13. The method of claim 11, wherein said streptolysin O is administered at a dosage from about 0.0032 units to about 50 units.

14. The method of claim 11, wherein said streptolysin O is administered at a dosage from about 0.05 units to about 10 units.

15. The method of claim 11, wherein said streptolysin O is administered at a dosage from about 0.01 units to about 1.0 units.

16. A pharmaceutical composition for administering to a subject for alleviating symptoms of a connective tissue disorder selected from the group consisting of Dupuytren's contracture, scleroderma, Peyronie's disease, and claudication due to peripheral arterial disease comprising streptolysin O in an amount effective to treat one or symptoms of said connective tissue disorder in a pharmaceutically acceptable excipient.

17. A pharmaceutical composition according to claim 16 comprising 0.0032 units to about 50 units of streptolysin O.

18. A pharmaceutical composition according to claim 16 comprising 0.05 units to about 10 units of streptolysin O.

19. A pharmaceutical composition according to claim 16 comprising 0.01 units to about 1.0 unit of streptolysin O.

20. A pharmaceutical composition for administering to a bovine for alleviating symptoms of a connective tissue disorder selected from the group consisting of mastitis due comprising streptolysin O in an amount effective to treat one or more symptoms of said connective tissue disorder in a pharmaceutically acceptable excipient.

21. A pharmaceutical composition according to claim 20 comprising 0.0032 units to about 50 units of streptolysin O.

22. A pharmaceutical composition according to claim 20 comprising 0.05 units to about 10 units of streptolysin O.

23. A pharmaceutical composition according to claim 20 comprising 0.01 units to about 1.0 unit of streptolysin O.

24. A method of alleviating symptoms of reproductive fibrosis conditions comprising administering to a subject in need thereof, streptolysin O in an amount effective to treat one or more symptoms of said reproductive fibrosis.

25. The method of claim 24 wherein the reproductive fibrosis condition is uterine fibrosis.

26. The method of claim 24 wherein the reproductive fibrosis condition is fallopian tube fibrosis.

27. The method of claim 24 wherein the subject is selected from the group consisting of humans and horses.

28. The method of claim 24 wherein the subject is a human.

29. The method of claim 24 wherein said streptolysin O is administered by a mode selected from the group consisting of sublingual, bucal, oral drench, subcutaneous, intradermal, intravenous, intramuscular, intrathecal, inhalation, and topical.

30. The method of claim 29, wherein said streptolysin O is administered sublingually.

31. The method of claim 24, wherein said streptolysin O is administered at a dosage from about 0.0032 units to about 50 units.

32. The method of claim 24, wherein said streptolysin O is administered at a dosage from about 0.05 units to about 10 units.

33. A method of protecting nerve cells in a subject from the effects of neurotoxic agents comprising administering to said cells an effective amount of Streptolysin O.

34. The method of claim 33 wherein the subject is a mammal.

35. The method of claim 33 wherein the subject is a human.

36. The method of claim 33 wherein said streptolysin O is administered by a mode selected from the group consisting of sublingual, bucal, oral drench, subcutaneous, intradermal, intravenous, intramuscular, intrathecal, inhalation, and topical.

37. The method of claim 36, wherein said streptolysin O is administered sublingually.

38. The method of claim 33, wherein said streptolysin O is administered at a dosage from about 0.0032 units to about 50 units.

39. The method of claim 33, wherein said streptolysin O is administered at a dosage from about 0.05 units to about 10 units.

40. The method of claim 33, wherein said streptolysin O is administered at a dosage from about 0.01 units to about 1.0 unit.

41. A method of inhibiting CD44 receptor mediated processes comprising administering streptolysin O to cells expressing the CD44 receptor in an amount effective to inhibit said CD44 receptor mediated processes.

42. The method of claim 41 wherein the CD44 receptor mediated process is hyaluronic acid binding to the CD44 receptor and streptolysin O is administered to cells expressing the CD44 receptor in an amount effective to inhibit said hyaluronic acid binding.

43. The method of claim 41 wherein said streptolysin O is administered by a mode selected from the group consisting of sublingual, bucal, oral drench, subcutaneous, intradermal, intravenous, intramuscular, intrathecal, inhalation, and topical.

44. The method of claim 43, wherein said streptolysin O is administered sublingually.

45. The method of claim 41, wherein said streptolysin O is administered at a dosage from about 0.0032 units to about 50 units.

46. The method of claim 41, wherein said streptolysin O is administered at a dosage from about 0.05 units to about 10 units.

47. The method of claim 41, wherein said streptolysin O is administered at a dosage from about 0.01 units to about 1.0 unit.